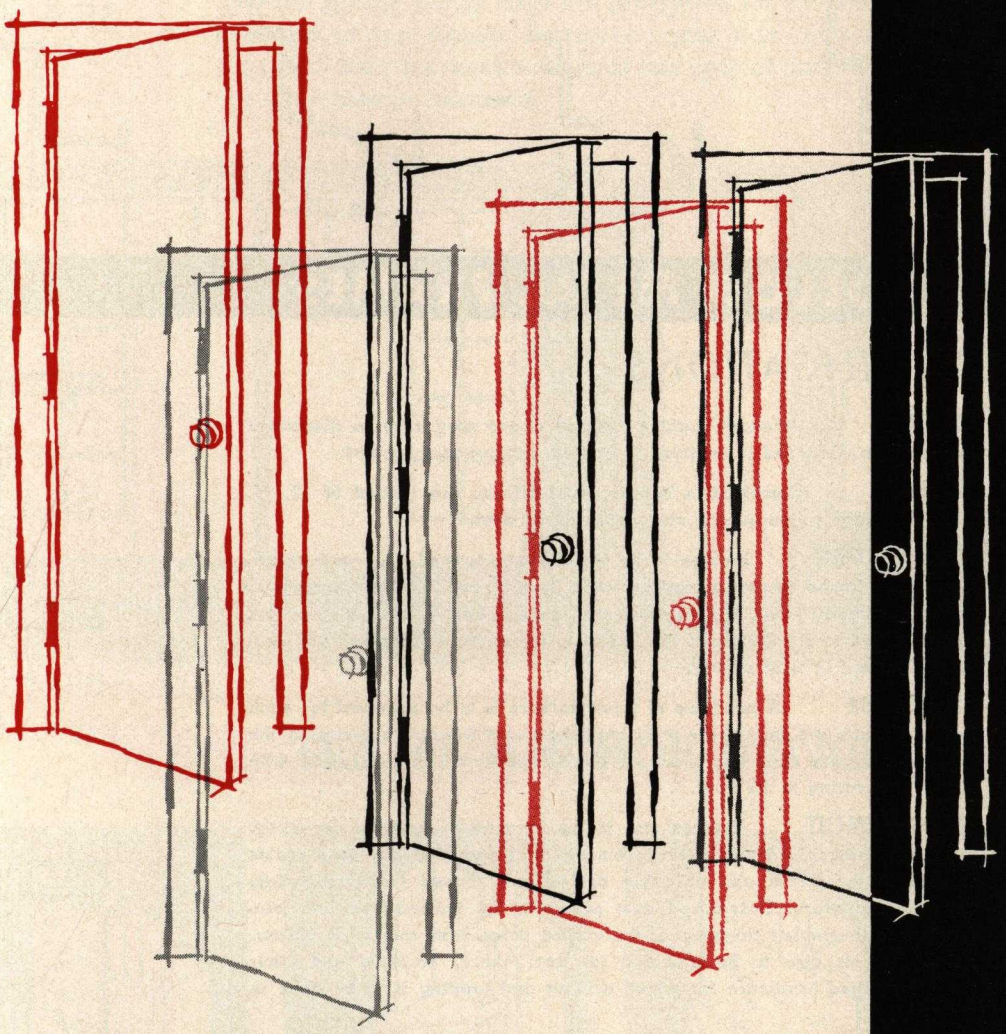
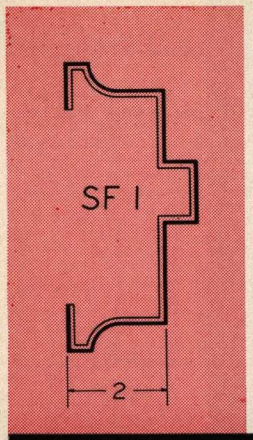


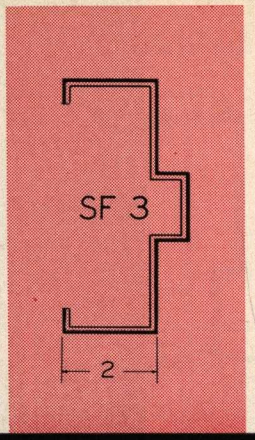
PIONEER

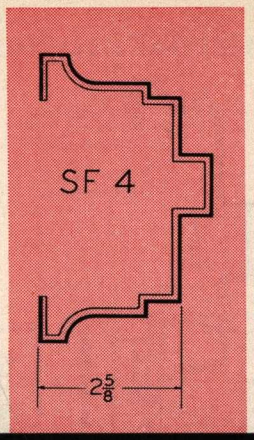
FIREPROOF DOOR CORP. MOUNT VERNON, NEW YORK

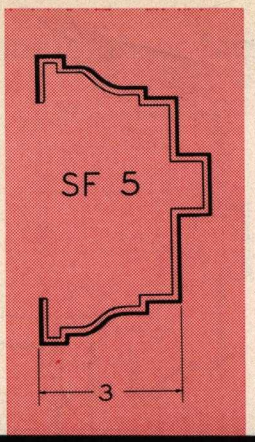
hollow metal frames
hollow metal doors
special hollow metal openings
industrial steel doors
kalamein & tin clad fire doors
soundproof doors

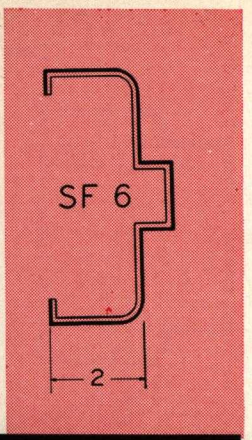
UNDERWRITER'S
Underwriters Laboratories Inc.
LISTED
FIRE DOOR
RATING 1½ HR. (B) NO.
LABEL SERVICE



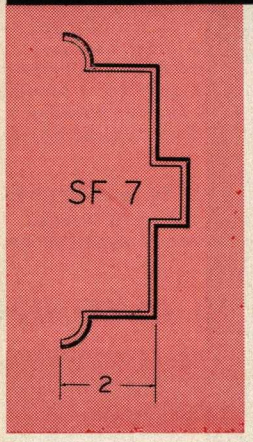








HOLLOW METAL FRAMES



SPECIFICATIONS

DESIGN All standard profiles detailed above may vary in dimension and may be combined to conform to desired architectural designs.

MATERIAL Combination hollow metal frames are formed of 12, 14, 16 or 18 gauge prime quality cold rolled sheet steel.

CONSTRUCTION Profiles to be press brake formed, true and sharp. Head and jambs to be assembled with tongue and slot arrangements; mitres accurately fitted, fully welded, and ground smooth. Angle spreaders to be welded to the bottom of the jambs to assure safe shipment, and perfect alignment in field setting.

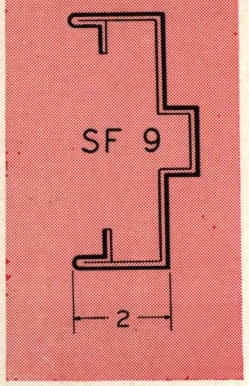
ANCHORAGE A minimum of three anchors is to be provided for each jamb. Anchors are to suit the wall conditions and the requirements of the job. Floor anchor clips are to be welded to each jamb and provided with holes for securing to the floor.

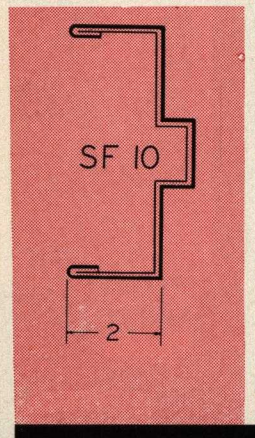
REINFORCEMENT Frames are to be accurately mortised for strike plates and hinges. Adequate reinforcements to be provided with steel plates welded to the frame and precisely drilled and tapped to accommodate template hardware. Galvanized dust covers to be welded over all reinforcements to prevent clogging, of the tapped holes, from mortar or plaster. Reinforcements also to be provided for door check, brackets and other surface applied hardware for which drilling and tapping is to be done in the field.

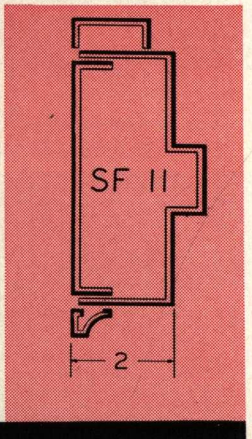
FINISH All frames to be given a prime coat of special "Pioneer" rust resistant metallic primer.

ALL HOLLOW METAL FRAMES AS INDICATED ON PLANS OR DOOR SCHEDULE SHALL BE AS MANUFACTURED BY THE PIONEER FIREPROOF DOOR CORP., MOUNT VERNON, NEW YORK.

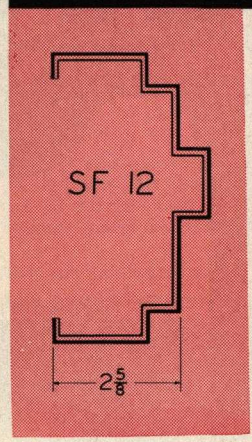
See the Pioneer Soundproof Door Insert 16m/Pi, in Sweet's, for specifications and details of certified sound rated doors and frames.

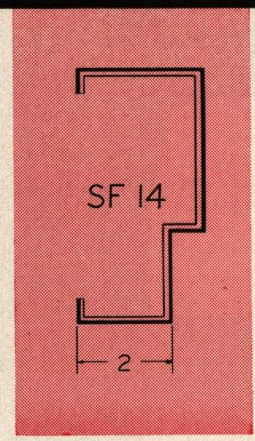


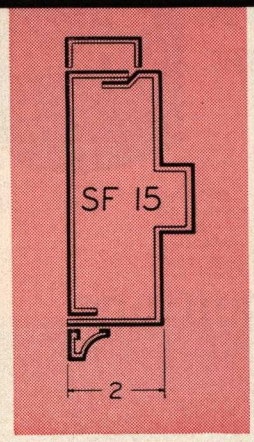


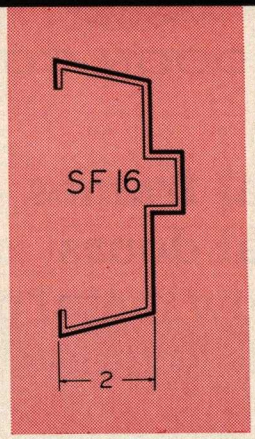


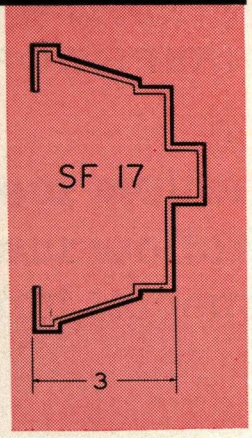
MANUFACTURED BY PIONEER











For UNDERWRITERS' REQUIREMENTS, see page 4.

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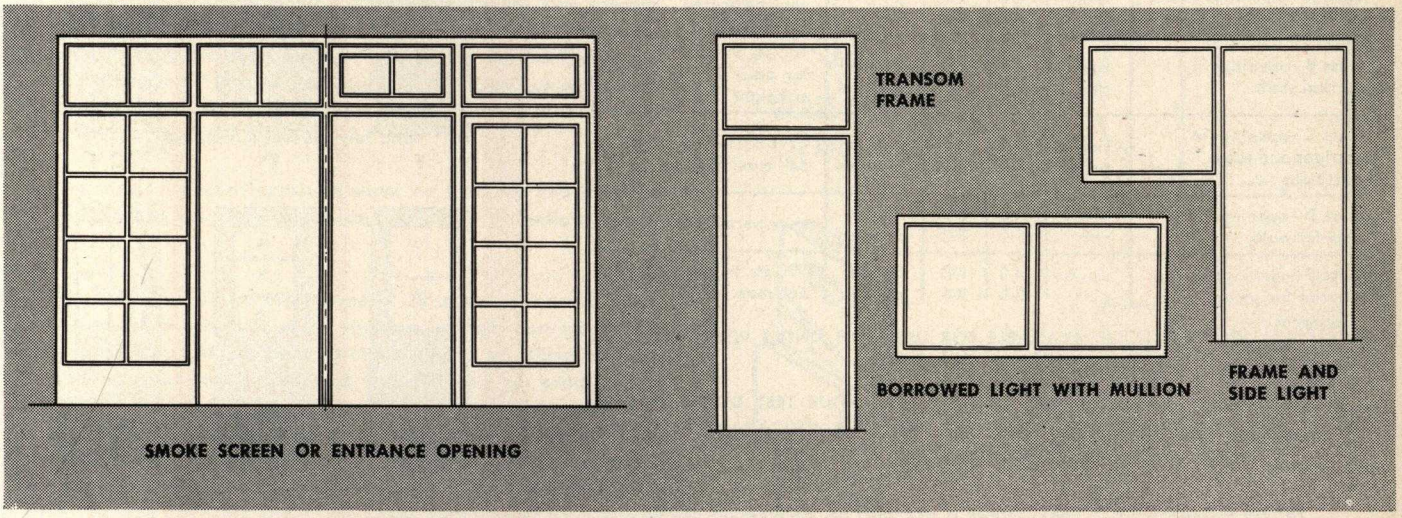
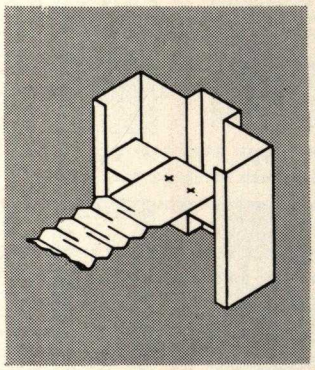
SPECIAL HOLLOW METAL OPENINGS

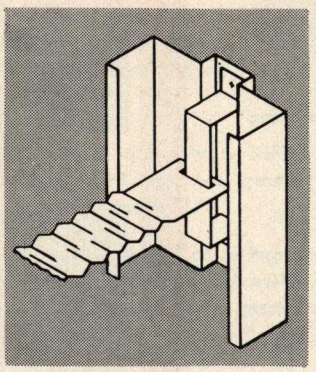
Special hollow metal units are fabricated for smoke screens; entrances; and any combination of door frames, borrowed lights, side lights, and fixed and operating transoms. Typified are various elevations of this special hollow metal work. Similar openings can be fabricated in kalamein.



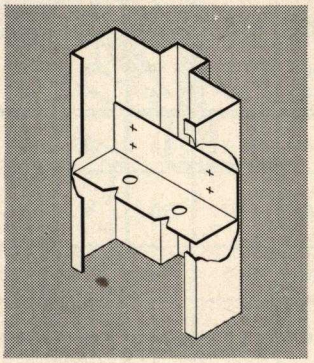
FRAME ANCHOR DETAILS



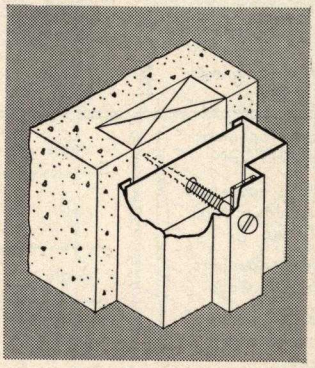
Corrugated adjustable loose "T" anchor



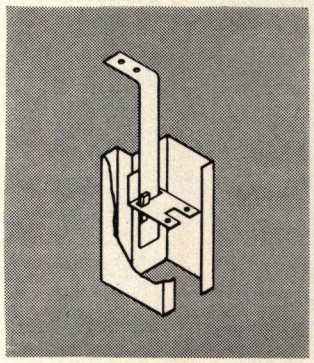
Corrugated adjustable Underwriters' approved anchor



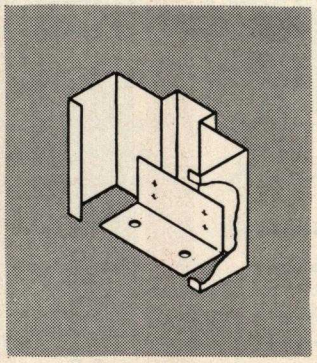
Steel stud anchor



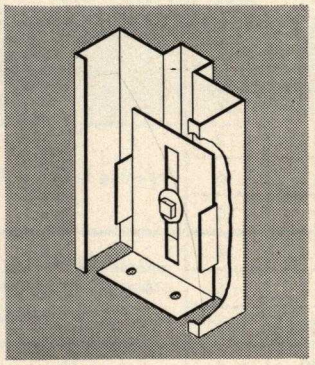
Special anchor for concrete or existing masonry walls



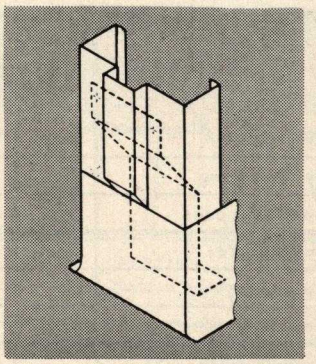
2" plaster partition anchor for metal stud with ceiling struts



Welded-on floor clip



Special adjustable floor clip



Offset floor struts— for frames setting on top of base stops cut off 45° and capped

UNDERWRITERS' REQUIREMENTS

for HOLLOW METAL & KALAMEIN DOORS, pages 5-6-7

class	swing	max. size width	max. size height	type	maximum glass area (wire glass)
class A—openings in fire walls (hollow metal only)	single pair	4-0 8-0	8-0 8-0	flush	none permitted
class B—openings in vertical shaft	single pair	4-0 8-0	8-0 8-0	flush or paneled	100 sq. in. combined area for pairs 12" max. width or height
class C—openings in corridor and room partitions	single pair	4-0 8-0	8-0 8-0	flush or paneled	1296 sq. in. each light 54" max. height
class D—openings in exterior walls	single pair	4-0 8-0	8-0 8-0	flush or paneled	none permitted
class E—openings in exterior fire escapes	single pair	4-0 8-0	8-0 8-0	flush or paneled	720 sq. in. each light 54" max. height

NOTE: CLASS A DOOR AVAILABLE FOR USE WITH SINGLE POINT LATCH — ¾" THROW

ONE HOUR AND ONE AND ONE-HALF HOUR TEST DOORS MAY BE LABELED TO COMPLY WITH THE NEW YORK CITY BOARD OF STANDARDS AND APPEALS SPECIFICATIONS.

Factory Mutual FM label service is available for all fireproof doors.

for HOLLOW METAL FRAMES, page 2

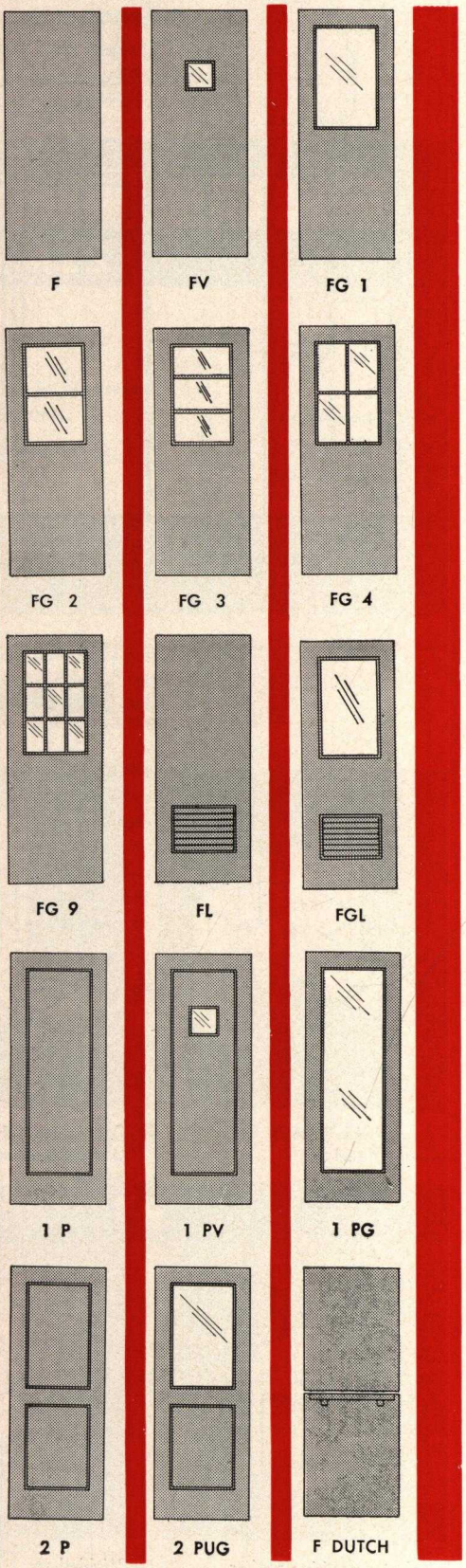
class	swing	max. size width	max. size height	minimum sizes gauge	minimum sizes stop height	minimum sizes wall thick.	minimum sizes trim width
class A—openings in fire walls	single pair	4-0 8-0	8-0 8-0	14 14	¾ ¾	4" 4"	1¼ 1¼
class B—openings in vertical shafts class C—openings in corridor or room partitions class D—openings in exterior walls class E—openings in exterior fire escapes	single	3-6	7-6	16	⅝	4"	1¼
	pair	5-0	7-0	16	⅝	4"	1¼
	single	4-0	8-0	14	⅝	4"	1¼
	pair	8-0	8-0	14	⅝	4"	1¼

for TIN CLAD FIRE DOORS, page 6

type of door	max. area square feet	maximum size of opening height ft.	maximum size of opening width ft.	type of label
3-ply single slide	120	12	12	opening in fire wall class A
3-ply single swing		12	6	
3-ply swing in pairs		12	10	
2-ply single slide	80	10	10	opening in vertical shaft corridor or room partition, or exterior wall; classes B, C, D, E
2-ply single swing		10	6	
2-ply swing in pairs	80	10	10	
2-ply single swing		10	4	opening to exterior fire escape; classes D and E
2-ply swing in pairs		10	6	
2-ply single swing		10	6	shutter for opening in exterior wall; classes D and E
2-ply swing in pairs	80	10	10	

NOTE: Doors for openings exceeding the sizes specified in the above table are not eligible to bear regular labels, but may bear oversize door labels, if found to comply with the requirements of this standard, except for size.

TYPICAL ELEVATIONS FOR HOLLOW METAL & KALAMEIN DOORS



In addition to Pioneer typical door designs illustrated, doors can be fabricated in any combination of solid, glazed or flush panels to meet all requirements or to match existing job conditions.

pioneer
HOLLOW METAL DOORS

Specifications and Sections

FLUSH TYPE DOORS shall be constructed of two sheets of finest grade 18 gauge cold rolled steel. Vertical stiffeners shall be truss type steel channels, spot welded to each inside face of the door full height, and not more than 6" apart. Top and bottom of door to be reinforced horizontally by steel channels full width, spot welded to each face at least 3" o.c. Joints at the edges of door to be **continuously welded** automatically by the gas shielded metal arc ("Heliwelding") process; arc welding and filling of seams not acceptable. Doors to be completely sound & fire insulated with Underwriters Approved mineral wool bats.

Pioneer method of construction assures no warping and assures rigidity beyond anything obtainable in standard hollow metal construction.

PANEL DOORS shall be constructed of 18 gauge stiles and rails, and 20 gauge panels, cold rolled stretcher leveled sheet steel. The joints at stiles and rails to be arc welded, ground and filled smooth. The door to be internally reinforced with channels full width at top and bottom and full height at each edge. Standard profile 20 gauge hollow metal moulding to be accurately mitred, welded into a unit, and securely arc welded to the stiles and rails. Intersection of hollow metal moulding with the stiles and rails to be reinforced with channels around the entire perimeter of panels and glass lights. Adequate insulation to be provided for stiles, rails and panels.

All hollow metal doors are to be accurately mortised for locks and hinges. Adequate reinforcements are to be provided with steel plates welded to the interior reinforcing channels, and drilled and tapped. Reinforcements are provided for door checks and other surface applied hardware for which drilling, and tapping is to be done in the field.

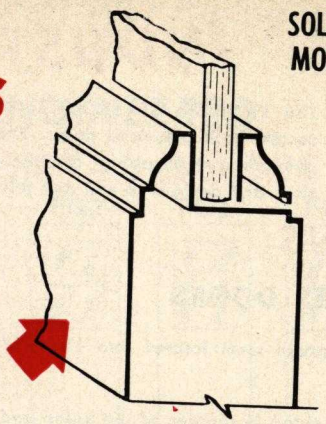
NOTE: Extreme care and precision is used in hardware layout and mortising so as to assure an accurate fit to the steel frames, keeping to a minimum the installation cost in the field.

All doors are thoroughly cleaned of grease, oil and other impurities, filled flush so as to completely conceal all seams and welds, and given two coats of baked-on rust-resisting metallic primer. Where specified, hollow metal doors may be given a baked enamel or grained finish consisting of two coats of primer and three coats of enamel, each coat baked and sanded smooth. Final coat to be rubbed to an egg shell finish.

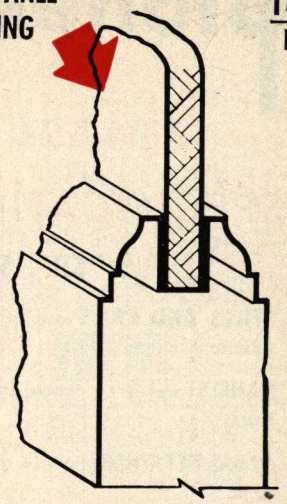
See the Pioneer Soundproof Door Insert 16m/Pi, in Sweet's, for specifications and details of certified sound rated doors and frames.

ALL HOLLOW METAL DOORS AS INDICATED ON PLANS OR DOOR SCHEDULE SHALL BE AS MANUFACTURED BY THE PIONEER FIREPROOF DOOR CORP., MOUNT VERNON, NEW YORK.

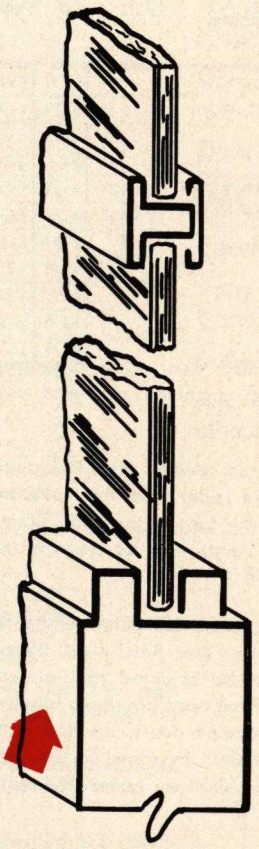
For UNDERWRITERS' REQUIREMENTS FOR HOLLOW METAL DOORS, see page 4.



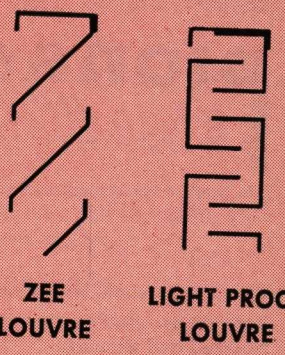
SOLID PANEL MOULDING



GLASS MOULDING PANEL DOOR

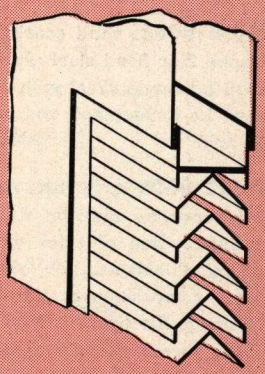


GLASS MOULDING AND MUNTIN BAR FLUSH DOOR



ZEE LOUVRE

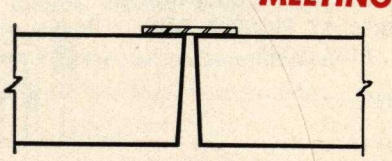
LIGHT PROOF LOUVRE



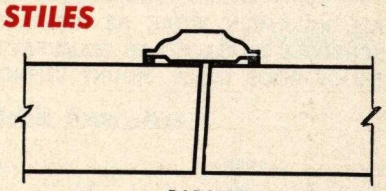
INVERTED "V" LOUVRE

These Louvres also available in KALAMEIN DOORS. See page 6.

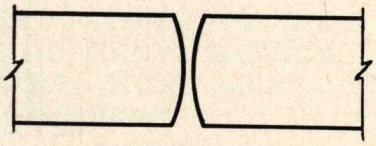
MEETING STILES



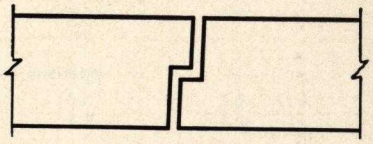
VEE BEVEL
With Flat Astragal



PARALLEL
With Molded Astragal



ROUNDED



RABBETTED

pioneer INDUSTRIAL STEEL DOORS

The PIONEER FIREPROOF DOOR CORPORATION manufactures a complete line of custom built industrial doors. These doors are particularly suited for installations where strength and durability are the prime factors. Industrial doors can be furnished in all sizes and designs to suit any job requirement.

SPECIFICATIONS

"SP" SERIES DOORS

STILES AND RAILS are of 16 gauge steel formed into 1¾" x 5" tubular sections.

PANELS are of 14 gauge steel welded to flanges of the stiles and rails.

GLASS RETAINERS are 14 gauge steel angles screwed to stiles and rails.

LOUVRES are stamped into 18 gauge panels.

"AP" SERIES DOORS

STILES AND RAILS are of 16 gauge steel formed into 1¾" x 5" tubular sections.

PANELS are constructed of ⅜" sheet rock insulation covered on both sides with #20 gauge steel.

GLASS RETAINERS are 14 gauge steel angles screwed to stiles and rails.

LOUVRES are stamped into 18 gauge panels.

pioneer KALAMEIN DOORS

See page 4 for typical elevations

specifications

Wood cores shall be fabricated of kiln dry, clear white pine, free from knots, shakes and other defects, machined all over and mortised and tenoned.

FLUSH DOORS shall consist of wood cores covered with 24 gauge Electro Zinc Bond steel glued to the cores under pressure. Covering shall be single sheet with no seams on the face of the door. Edges shall be lockseamed and soldered full length of door and ground smooth.

PANEL DOOR stiles shall extend unbroken the full height of doors. Steel covering shall be of 26 gauge Electro Zinc Bond steel. Seams at intersection of stiles and rails shall be soldered and ground smooth. Panels shall be fabricated of ⅜" asbestos board for labeled doors, composition or plywood for nonlabeled doors, covered with 24 gauge Electro Zinc Bond steel. Metal shall be glued to the core under pressure. Panel or glass moulding shall be either 20 gauge rolled steel or die drawn kalamein.

All exposed surfaces of the door shall be thoroughly cleaned and given a coat of special "Pioneer" rust-resistant primer.

Where specified, kalamein doors can be factory reinforced and mortised for hardware.

ALL KALAMEIN WORK AS INDICATED ON PLANS OR DOOR SCHEDULE SHALL BE AS MANUFACTURED BY PIONEER FIREPROOF DOOR CORP., MOUNT VERNON, NEW YORK.

pioneer TIN CLAD FIRE DOORS AND HARDWARE

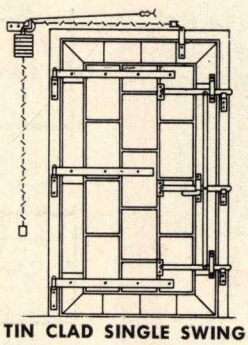
specifications

The cores of the doors shall be made of either two or three plies, and thoroughly seasoned, tongue and grooved, non-resinous, properly kiln dried and dressed white pine or spruce, as the class of the label requires, with each ply finishing of not less than 25/32" in thickness. The outer plies shall be vertical and the inner or center ply horizontal, and the plies shall be nailed together with cut nails driven in and clinched slightly below the surface. Two-ply doors shall have a finished thickness of 1¾" and three-ply doors shall have a finished thickness of 2½".

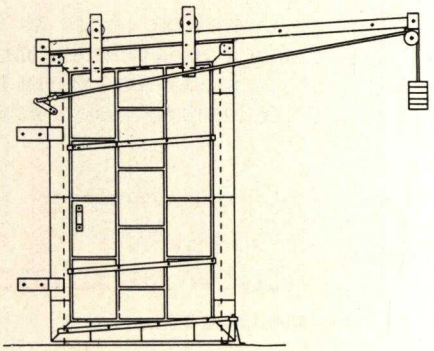
The core shall be covered on all sides with 1D-20 pound fire door standard terne plate, not larger than 14 x 20 inch size. Plates shall fit the core as flatly and tightly as practicable. and shall be locked together with ½" seams.

THREE-HOUR TEST DOORS In New York City, three-hour test doors are made to comply with the New York City Board of Standards and Appeals specifications.

WHERE SHOWN ON DRAWINGS, FURNISH "PIONEER" UNDERWRITER LABELED FIRE DOORS COMPLETE WITH UNDERWRITER LABELED HARDWARE, IN ACCORDANCE WITH REQUIREMENTS FOR THE PARTICULAR LOCATION.



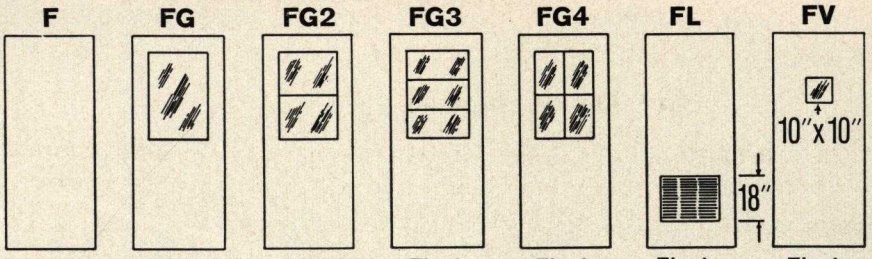
TIN CLAD SINGLE SWING



(SEE PAGE 4 FOR UNDERWRITERS REQUIREMENTS)

pioneer

CUSTOM ENGINEERED
HOLLOW METAL DOORS & FRAMES



specifications

doors

SPECIFICATIONS

1¾" thick — #18 gauge.

Edges continuously heliwelded. (no seams on either face or edge)

Baked prime gray finish.

Underwriters' approved insulation.

Mortised and reinforced for 1½ pair of 4½ x 4½ full mortise template hinges.

All doors cut for cylindrical (key in knob) lock with 2¾" backset as manufactured by:

Schlage — Corbin
Russwin — Lockwood
Yale and Towne

AVAILABLE IN MOST WIDELY USED SIZES

Size	Types available						
2-6 x 6-8	F	FG	FG2	FG3	FG4	FL	
2-6 x 7-0	F	FG	FG2	FG3	FG4	FL	
2-8 x 6-8	F	FG	FG2	FG3	FG4	FL	
2-8 x 7-0	F	FG	FG2	FG3	FG4	FL	
3-0 x 6-8	F	FG	FG2	FG3	FG4	FL	FV
3-0 x 7-0	F	FG	FG2	FG3	FG4	FL	FV
3-8 x 6-8	F	FG	FG2	FG3	FG4		
3-8 x 7-0	F	FG	FG2	FG3	FG4		
5-0 x 6-8	F	FG	FG2	FG3	FG4		PAIRS
5-0 x 7-0	F	FG	FG2	FG3	FG4		
6-0 x 6-8	F	FG	FG2	FG3	FG4		
6-0 x 7-0	F	FG	FG2	FG3	FG4		

All doors are available in either Left Hand or Right Hand swing.

Doors for 7-0 jamb opening height are made 6-11¼" high.

Doors for 6-8 jamb opening height are made 6-7¼" high.

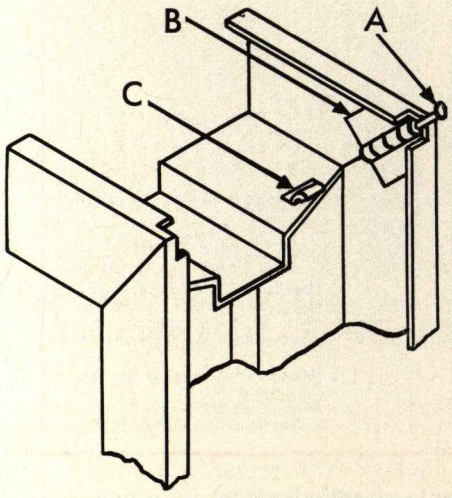
⅛" clearance at top and sides of all doors.

Pairs of doors available with left hand leaf active only.

Label service available.

All doors reinforced for surface closers.

Lok-Tite hinge



A—Connecting pin for locking hinge member.

B—Pioneer Lok-Tite hinge connecting members—1 leaf spotwelded to head, 1 to jamb.

C—Tongue and slot engagement.

FRAME SPECIFICATIONS

#16 gauge pressed steel.

Mortised and reinforced for 1½ pair 4½" template hinges (full mortise or half surface).

Mortised, reinforced, and furnished with a universal brass plated cylindrical or mortise lock strike.

Every frame head reinforced for application of surface closer either side.

Every frame head reinforced for soffit bracket and overhead surface holder.

Punched for and furnished with (3) door silencers per jamb.

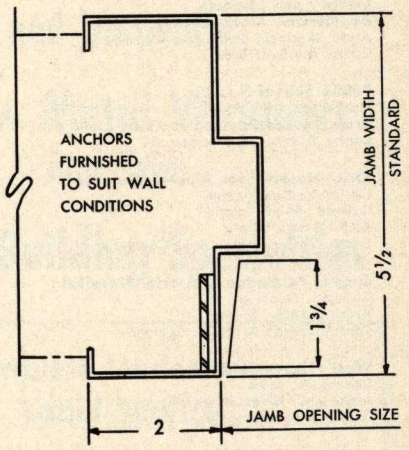
Plaster guards welded behind each hardware cutout.

Shop coat Pioneer rust resistant primer.

Available with the Underwriter's label.

PIONEER'S PATENTED LOK-TITE MITRE GUARANTEES QUICK ASSEMBLY—TIGHT JOINT—NEAT APPEARANCE.

Frame section



available head sizes

singles		pairs
2-0	3-0	4-0
2-4	3-4	5-0
2-6	3-6	5-4
2-8	3-8	6-0
2-10	4-0	
trimmed openings		
2-6	3-0	5-0
2-8	4-0	6-0

Jambs are available in both 6-8 and 7-0 heights.

U. S. AIR FORCE ACADEMY, COLORADO SPRINGS, COLORADO • ARCH: SKIDMORE, OWINGS AND MERRILL • CONTR: ROBERT E. McKEE

INSTALLATIONS

Executive Mansion, White House
Washington, D.C.
Arch: Lorenzo S. Winslow
Contr: John McShain, Inc.

Habana Hilton Hotel
Habana, Cuba
Arch: Welton Becket & Assoc. Arroyo & Menendel
Contr: Frederick Snare Corp.

Western Electric Co.
Columbus, Ohio
Arch: Western Electric Co.
Contr: Turner Construction Co.

Library and Museum
Montgomery, Alabama
Arch: Sherlock, Smith and Adams
Contr: The Bear Brothers

Public School No. 28
Manhattan, New York
Arch: Maurice Courland and Son
Contr: Wilaka Construction Co.

State Hospital for Mental Diseases
Geriatrics Department
Howard, Rhode Island
Arch: Oresto Disaia
Contr: Dimeo Construction Company

Eugene Talmadge Memorial Hospital
Augusta, Georgia
Arch: Gregson & Ellis
Contr: George A. Fuller Company

West High School
Davenport, Iowa
Arch: L. C. Kingscott and Assoc.
Contr: Miller-Davis Co.

Old Age & Survivors Insurance Building
Baltimore, Maryland
Arch: Meyer & Ayers, Fisher, Nes, Campbell & Assoc.
Contr: McCloskey & Company

State Office Building
Albany, New York
Arch: Cornelius J. White, State Architect
Contr: James Stewart and Company

Lawrence Memorial Hospital
New London, Conn.
Arch: York and Sawyer
Contr: W. J. Megin, Inc.

Sedgwick County Court House
Wichita, Kansas
Arch: Thomas, Harris and Calvin
Contr: Martin K. Eby Construction Co.

Lackawanna Office Building
Hamburg, New York
Arch: McKim, Mead and White
Contr: J. W. Cowper Company

Medical Center University Hospital
Morgantown, W. Va.
Arch: C. E. Sillings and Assoc.
Contr: John McShain, Inc.

U.S. Air Force Hospital
Lackland Air Force Base, Texas
Arch: Wirtz, Calhoun, Tungate and Jackson
Contr: McKenzie Construction Company

Smithtown Jr. Sr. High School
Smithtown, New York
Arch: Ketchum, Gina, Sharp
Contr: Edward Corning Company

Carbide & Carbon Chemicals Co.
South Charleston, W. Va.
Arch: Alfred Fellheimer & Steward Wagner
Contr: Southeastern Construction Co.

Kingston Steam Plant
Tennessee Valley Authority
Kingston, Tennessee
Arch: Tennessee Valley Authority
Contr: Tennessee Valley Authority

East High School
Aurora, Illinois
Arch: Perkins and Will
Contr: Arnold Lies Co.

Longview State Hospital
Cincinnati, Ohio
Arch: Potter, Tyler, Martin & Roth
Contr: H. W. Miller Construction Co.

Ford Motor Company
Sandusky, Ohio
Arch: Roseti-Giffels & Vallet
Contr: The H. K. Ferguson Co.

Metropolitan Life Insurance Company
New York City, New York
Arch: Lloyd Morgan
Contr: Starrett Bros. & Eken, Inc.

Cathedral High School
Springfield, Mass.
Arch: Eggers and Higgins
Contr: Daniel O'Connells' Sons, Inc.

Monmouth Shopping Center
Eatontown, N. J.
Arch: Kahn and Jacobs
Contr: Joseph L. Muscarelle, Ltd.

Pioneer manufactures a completely integrated line of fireproof door products, allowing for placement of all door requirements with one manufacturer, and assuring centralized responsibility, not only for quality, but for job progress. Pioneer products are distributed nationally through competent, qualified representatives in most principal cities.

Our thoroughly experienced Engineering Department is always at the disposal of contractors and architects to offer every possible assistance.

PIONEER

FIREPROOF DOOR CORP. MOUNT VERNON, NEW YORK

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